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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/654,973	09/05/2003	Tsutomu Tashiro	11-179	5676
23400	7590	09/15/2005	EXAMINER	
POSZ LAW GROUP, PLC 12040 SOUTH LAKES DRIVE SUITE 101 RESTON, VA 20191			PANG, ROGER L	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/654,973

Applicant(s)

TASHIRO, TSUTOMU

Examiner

Roger L. Pang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
4a) Of the above claim(s) 18 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3, 9-13, 16, 17, 19-22, 28 and 29 is/are rejected.
7) ☒ Claim(s) 4-8, 14, 15 and 23-27 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The following action is in response to the amendment filed for application 10/654,973 on August 4, 2005.

Election/Restrictions

Claim 18 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on December 7, 2004.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 16, 19-20, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Hubbard. With regard to claims 1 and 20, Hubbard teaches an apparatus for controlling a joint force of a friction-joint component C-1 placed in a torque transmitting mechanism mounted on a vehicle that is running, the friction-joint component receives, as an input torque, a torque generated by a drive source 12 to output the inputted torque, as an outputted torque, from the torque transmitting mechanism, comprising: a guideline producing unit (Fig. 6A) configured to produce both a first target operation guideline directed to the torque transmitting mechanism and a second target operation guideline 104/93 directed to the drive source, the first target operation guideline including information regulating a transmitted torque capacity TQcl of the torque

transmitting mechanism (Col. 8); a joint force setting unit configured to set a value of the joint force depending on the information regulating the transmitted torque capacity (Col. 8); a joint force controlling unit 130 configured to control the joint force of the friction-joint component based on the first target operation guideline; and a drive force controlling unit 88 configured to control a drive force of the drive source based on the second target operation guideline, the drive force leading to the torque inputted to the friction-joint component. With regard to claims 16 and 28, Hubbard teaches the apparatus, wherein the second target operation guideline includes information indicative of a target value of engine torque 100, the information being given to the drive force controlling unit (Fig. 6A). With regard to claim 19, Hubbard teaches the apparatus, wherein the torque transmitting mechanism is a connected/disconnected type of transmission 10 arranged within a drive train.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3, 9-11, 13, 17, 21-22, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hubbard as applied to claim 1 above, and further in view of Jamzadeh. With regard to claims 2 and 21, Hubbard teaches the apparatus wherein the information regulating the transmitted torque capacity is a transmitted-torque capacity of the torque transmitting mechanism, wherein the joint force setting unit is configured to set the value to the joint force so

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that the transmitted torque capacity is equal to or larger than the transmitted-torque capacity. Hubbard lacks the specific teaching of said capacity being the transmitted-torque capacity lower limit. Jamzadeh teaches a clutch C-1 controlled within a transmission to a torque capacity equal to or larger than the transmitted-torque capacity lower limit $[T(PCREFMIN)]$ (Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hubbard to employ the transmitted-torque capacity lower limit as the TC (torque capacity), in order to minimize heat generation within the clutch (Col. 1). With regard to claims 3 and 22, Hubbard teaches the apparatus wherein the information regulating the transmitted torque capacity is a transmitted-torque capacity of the torque transmitting mechanism, wherein the joint force setting unit is configured to set the value to the joint force so that the transmitted torque capacity is equal to or larger than the transmitted-torque capacity. Hubbard lacks the specific teaching of said capacity being the transmitted-torque capacity maximum value. Jamzadeh teaches a clutch C-1 controlled within a transmission to a torque capacity equal to or lesser than the transmitted-torque capacity maximum value $[T(PCREFMAX)]$ (Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hubbard to employ the transmitted-torque capacity maximum value as the TC (torque capacity), in order to minimize heat generation within the clutch (Col. 1). With regard to claim 9, Hubbard in view of *Jamzadeh* teach the apparatus, wherein the guideline producing unit has a unit configured to produce the transmitted torque capacity TQ_{cl} given to the torque transmitting mechanism in accordance with a torque applied (*Fig. 14D*) via the inputted torque to the torque transmitting mechanism and an operated condition of the torque transmitting mechanism and a unit configured to finally designate, as the transmitted torque capacity, either one which is larger than

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the other between the transmitted torque capacity given to the torque transmitting mechanism and the transmitted-torque capacity lower limit [$T(PREFMIN)$]. With regard to claim 10, Jamzadeh teaches the apparatus, further comprising a unit configured to estimate a joint condition of the friction -joint component, wherein the transmitted-torque capacity producing unit is configured, when the estimation unit estimates that the joint condition of the friction-joint unit is improper, to raise the transmitted torque capacity given to the torque transmitting mechanism (Fig. 12). With regard to claim 11, Jamzadeh teaches the apparatus, wherein the estimation unit is configured to determine that the joint condition of the friction-joint component is improper in cases where a difference between a rotation speed attributable to the inputted torque from the drive source to the friction-joint component and a further rotation speed attributable to the output torque from the friction-joint component to the drive shaft is higher than a predetermined value (Fig. 8). With regard to claim 13, Jamzadeh teaches the apparatus, further comprising a unit configured to detect a malfunction of the torque transmitting mechanism wherein the transmitted-torque capacity producing unit is configured, when the detection unit detects the malfunction of the torque transmitting mechanism, to change the first target operation guideline so that the transmitted torque capacity given to the torque transmitting mechanism is raised (Fig. 12). With regard to claims 17 and 29, see rejection of claims 2 and 3.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hubbard in view of Jamzadeh as applied to claim 9 above, and further in view of Oba. Hubbard and Jamzadeh teach the apparatus, but lack the teaching of estimating a temperature of the torque transmitting mechanism and raising the torque capacity when a high temperature is detected. Hubbard teaches a unit configured to estimate 1 an operating temperature of the torque transmitting

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mechanism wherein the transmitted-torque capacity producing unit is configured, when the estimation unit estimates that the operating temperature ToL is outside a predetermined temperature range α that gives a proper operating condition to the torque transmitting mechanism, to raise the transmitted torque capacity given to the torque transmitting mechanism

3. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hubbard in view of Jamzadeh to employ a higher torque capacity when a high temperature is detected in further view of Oba in order to avoid shift shock (Col. 2).

Allowable Subject Matter

Claims 4-8, 14-15, and 23-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

With regard to the Jamzadeh reference, applicant argues that the reference is not applicable, since the vehicle is claimed to be “running.” However, a vehicle that is “running” may be interpreted as having its engine on, which Jamzadeh does teach. Therefore the Jamzadeh reference is applicable.

With regard to the Hubbard reference, applicant argues that:

- 1) Hubbard lacks a teaching of a joint force setting unit configured to set a value to a joint force depending on information regulating the transmitted torque capacity.
- 2) The objective of Hubbard is completely different than that of the present invention.

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With regard to the first argument, Hubbard teaches a joint force setting unit. 130, and said joint force setting unit is controlled depending on not only information regulating the transmitted torque capacity (via 88) but also the transmitted torque capacity itself TQcl (see col. 8).

With regard to the second argument, although Hubbard may have a different objective than the present invention, and the friction-joint itself may not be the same friction-joint in the power train of the disclosed present invention, the claim is claimed broadly, and the controls and components of Hubbard do teach the claimed limitations of the present invention.

Applicant's arguments have been considered, but are not persuasive.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. The central facsimile number is (571) 273-8300. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

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Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571) 273-8300) on _____ (Date)

Typed or printed name of person signing this certificate:

(Signature)


If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L. Pang whose telephone number is 571-272-7096. The examiner can normally be reached on 5:30am to 4:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roger L. Pang
Primary Examiner
Art Unit 3681

September 8, 2005